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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/492,913	01/20/2000	Anthony M Eaton	899.01 IUS1	1549
21186 7590 08/05/2008 SCHWEGMAN, LUNDBERG & WOESSNER, P.A. P.O. BOX 2938 MINNEAPOLIS, MN 55402				
EXAMINER				
LAO, LUN S				
ART UNIT		PAPER NUMBER		
2615				
MAIL DATE		DELIVERY MODE		
08/05/2008		PAPER		

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/492,913
Filing Date: January 20, 2000
Appellant(s): EATON ET AL.

Marvin L. Beekman
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 05-19-2008 and 04-14-2008 appealing from the Office action mailed 07-13-2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement (filed on 05-19-2008) of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

Hagen et al.	(US PAT. 6,424,722)	Jul. 23, 2002
Anderson	(US PAT. 5,721,783)	Feb. 24, 1998
Shennib	(US PAT. 5,197,332)	Mar. 30, 1993

Leppisaari et al.	(US PAT. 6,717,925)	Apr. 6, 2004
Szymansky	(US PAT. 6,557,029)	Apr. 29, 2003
Knappe et al.	(US PAT. 6,061,431)	May 9, 2000
Fazio	(US PAT. 6,590,986)	Jul. 8, 2003
Peters	(US PAT. 6,601,093)	Jul. 29, 2003

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

1. Claims 1-5, 15-21, 24-26, 30, 32, 33, 36, 47- 53, 56-58, 64-66, 68, 69 and 94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hagen et al (US PAT 6,424,722) in view of Anderson (US PAT 5,721,783).

Consider claim 1, Hagen teaches a method comprising
communicating between a mobile device (portable multiprogram unit PMU 320, fig.9, col. 12, line 66 – col. 13, line 9) and a programming fitting server (host computer 236, to perform programming function, fig.9, col. 10, lines 11-22); and
programming software in a hearing aid (download or program software into memory 374 (fig.10) of hearing aid device 344 in (fig.9)) using the programming fitting server (236) and the mobile device (320) (col. 14, line 1 - col. 15, line 37); but Hagen does not teach that the communication between the mobile device and the programming fitting server uses a mobile wireless communication protocol.

However, Anderson teaches programming (adjusting hearing compensation) hearing devices (10, fig.1), wherein the communication between a mobile device (16, col. 3, line 51-col.4 line 14) and a programming fitting server (19) (col.27 line 21-24)

uses a mobile wireless communication protocol (see col. 25 line 15-col. 26 line 23).

Anderson teaches that the wireless communication link is alternative to a wired communication link (col.27 line 21-24).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Anderson into Hagen by using a mobile wireless communication protocol to establish the communication between the mobile device and the programming fitting server in order to take advantage of mobility and convenience.

Consider claims 2-3, Hagen teaches a programming software in a hearing aid includes upgrading software in the hearing aid (see figs. 9-10 and col. 14 line 1-col. 15 line 37); and the programming software in a hearing aid includes sending a distributed application from the server (see fig.9, (236 central computer and see col.2, line 22-42)) to the mobile device (320 in fig.9), the distributed application being adapted to interact with the hearing aid (see col. 14 line 1-col. 15 line 37).

Consider claim 4, Hagen teaches programming a hearing aid system (344, 348 in fig.9) through a mobile device (320, portable multiprogram unit PMU 320, col. 12, line 66 – col. 13, line 9) wherein programming the hearing aid system includes (see figs 9-10 and col. 14 line 1 –col. 15 line 15):

receiving (download, col. 13, lines 4-11; col. 14, lines 16-18) a distributed application (programming software in hearing aid memory) in the mobile device (PMU, 320) from a programming fitting server (host computer 236, col. 10, lines 11-22); and

using the distributed application to program a hearing aid in the hearing aid system (adjust parameters, col. 15 lines 7-12, 19-26 and See additionally, col. 14 line 1-col. 15 line 37); but Hagen does not clearly teaches the receiving is through at least one long-range network using the at least one mobile wireless communication protocol.

However, Anderson teaches wireless communications, implemented with a mobile wireless communication protocol, between the mobile device and the programming fitting server. See discussion of claim 1. Anderson teaches long-range network (see fig.1 and see col. 3 line 51-col. 4 line 14).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Anderson into Hagen to use a mobile wireless communication protocol to establish communication between the mobile device and the programming fitting server in order to take advantage of mobility and convenience.

Consider claim 15, Hagen teaches a hearing aid system having hearing aid (see fig.9 (344,348)), programming fitting server (236), mobile device (320) adapted to communicate with the programming fitting server (326) and to program the software in the hearing aid (344,348), as discussed in detail in the rejection of claim 1 and 4 with respect to Hagen.

Hagen does not teach that the communication between the mobile device and the programming fitting server uses a mobile wireless communication protocol.

Anderson teaches a mobile device (RPU 16 with wireless link circuitry 19) receives programming (test program) using a mobile wireless communication protocol

(secondary wireless link), alternative to wired link. Col. 27, lines 22-24. See additionally, fig.2, col.5 line 60-col. 6 line 46, col.25 line 15-col. 26 line 53.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Anderson into Hagen to use a mobile wireless communication protocol to establish communication between the mobile device and the programming fitting server so that more convenience could be provided to the user.

Consider claim 16, Hagen teaches that the server (see fig.9, 236 such as center computer and see col.2, line 22-42) is adapted to transmit a distributed application to the mobile device (320) the distributed application being adapted to interact with the hearing aid (344,348 and see col. 14 line 1-col. 15 line 33).

Consider claims 17 and 48-49, Anderson teaches a server adapted to communicate with the mobile device ((because by local area networking and see fig.1, 13 in associated with 16 to provide a mobile device and col.27 lines 4-24) (see col.26 lines 6-53); and the system of further comprising at least one network to facilitate communications at least among the hearing aid system, the mobile device (see fig.1, 13 in associate with 16 to provide a mobile device and col.27 lines 4-24), and the server (see col.26 lines 6-53 and see the discussion in claim 15).

Consider claims 18-19 and 50-51, Hagen teaches that the system of the hearing aid system includes a hearing aid programming system (see fig.9 and col.14 line 1-col.15 line 33); and the system of the hearing aid system is capable of audio signal processing system (see figs.9-10 and col.14 line 1-col.15 line 33).

Consider claims 20 and 52, Hagen teaches that the system of the hearing aid system includes a programming module adapted to communicate with the hearing aid, and wherein the programming module is adapted to communicate with the mobile device (320 in fig. 9) so as to receive at least one programming instruction from the mobile device (320) to program the hearing aid (see fig.9, 344, 348 and col.14 line 1-col.15 line 33).

Consider claim 21, Anderson teaches the system of the programming module includes a headset (see fig.2, 28).

Consider claim 24, Anderson teaches that the system of the mobile device includes a mobile device selected from a group consisting of a digital cellular telephone, a personal digital assistant, and a personal communication and information device (see fig.2).

Consider claims 25-26 and 57-58 the mobile device (see fig.9, (320)) of the system of Hagen is adapted to inherently synchronize data with the server (see fig.9, 236 such as central computer and see col.2, line 22-42 and col. 14 line 1-col. 15 line 33); and the mobile device (see fig.9 320) receive an upgraded audiological software from the server (see fig.9, 236 such as, central computer and see col.2, line 22-42 and col. 14 line 1-col. 15 line 33).

Consider claim 30, Anderson teaches the system of the mobile device is configured to communicate with the hearing system over a short-range network (see fig.2 and col.5 line 61-col.6 line 25).

Consider claims 32-33, and 64-65, Anderson teaches that the system of the optical (reads on infrared) communication network (see fig.1) includes an optical communication network using Infrared Data Association (IrDA) protocol (see col.22 line 63-col.23 line 35); and the system of the hearing aid system is adapted to communicate with the mobile device wirelessly through the short-range network (see fig.2 (between 23 and 22)).

Consider claim 36, Hagen as modified by Anderson teaches a system comprising:

- a hearing aid system having a hearing aid (344,348, discussion of claim 1);
- a distributed application (hearing aid programming software, discussion of claim 4);
- a mobile device adapted (320) to program the hearing aid, the mobile device adapted to receive the distributed application from a computer (236) (discussion of claim 4, receiving); the mobile device (320) adapted to use the distributed application to program the hearing aid (discussion of claim 15, to program).

Hagen does not teach the reception uses mobile wireless communication protocol and through long-range network.

Anderson teaches a mobile device (RPU 16 with wireless link circuitry 19) receives programming information using a mobile wireless communication protocol (secondary wireless link), alternative to wired link, as discussed in detail in the rejection of claim 15.

Anderson also teaches a long-range network (see col. 25 line 15-col. 26 line 53).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Anderson into Hagen to include a wireless communication for the reception through a long-range network. Note discussion of claim 15 for a motivation to combine.

Consider claims 47-48, Hagen as modified by Anderson teaches hearing aid system having a hearing aid (344,348 in fig.9); and terminal (320) adapted to program software in the hearing aid (discussion of claim 15, to program), the terminal adapted to use at least one wire communication protocol to communicate with a programming fitting server (236) (discussion of claim 15, to communicate). It is noted that software (program 1, ..., program N) in the hearing aid in Hagen is transmitted from PMU 320 and programmed/controlled by the PMU (col. 14, line 55-62; col. 15, lines 1-18).

Consider claim 53, Anderson teaches that the system of the programming module includes a headset (see fig.2) that is capable of communicating ambient information (see col. 26 line 6-col.27 line 24).

Consider claim 56, Anderson teaches the system of the terminal is a data terminal (see figs.2 and 5a-5b and col.11 line 19-col.12 line 46).

Consider claim 66, note discussion of claims 1 and 4 for hearing aid system having a hearing aid (344, 348), programming fitting server (236) adapted to store (col. 10, lines 11-22), distributed application (hearing aid programming software)(see col. 10 line 54-67), and terminal (320) adapted to program the hearing aid (344,348), the terminal adapted to communicate using a wire communication protocol to receive the distributed application from the server (discussion of claim 4, with respect to receiving).

Hagen as modified further teaches the terminal / mobile device (320) is adapted to use the distributed application to interact with the hearing aid (adjust parameters, col. 15, lines 7-12, 19-26). Note discussion of claim 1 for a motivation to combine.

It is noted that "the mobile device" of line 6 is interpreted as "the terminal", as best understood and as it appears to be.

Consider claims 68 and 69, Anderson teaches that the terminal is adapted to communicate using a wireless access protocol (such as cellular telephone and see col.26 lines 6-24); and the system of the distributed application includes an object (such as for matching telephone number) that is adapted to receive information from the server and adapted to transmit information to the server (see col.25 line 15-col.26 line 24).

Consider claim 94, Anderson teaches the system of the mobile device is adapted to communicate using a Wireless Access Protocol (such as cellular telephone and see col.5 line 22-col.6 line 25).

2. Claims 22, 23, 54 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hagen et al (US PAT 6,424,722) modified by Anderson (US PAT 5,721,783) as claims 15 and 47 above, and further in view of Shennib (US PAT 5,197,332).

Consider claims 22, 54, Hagen and Anderson do not teach the hearing aid is capable of digital audio compression and decompression, and wherein the programming module is capable of digital audio compression and decompression.

However, Shennib teaches the hearing aid is capable of digital audio compression and decompression, and wherein the programming module is capable of digital audio compression and decompression (see col.6 line 62-col.8 line 25).

Therefore, it would have obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Shennib into the teaching of Hagen and Anderson to provide a unitary system for both testing of hearing and programming a programmable hearing aid for faster communication between two system.

Consider claims 23, 55, Shennib teaches the system of the programming module is capable of sending a test audio signal to the hearing aid so as to test at least one aural response of a patient (see col.7 line 22-col.8 line 29).

3. Claims 27-29, 31-32 and 34-35 and 59-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hagen et al. (US PAT 6,424,722) as modified by Anderson (US PAT 5,721,783) as claims 15 and 47 above, and further in view of Leppisaari et al. (US PAT 6,717,925).

Consider claims 27 and 59, Hagen and Anderson do not teach that the system of the mobile device is adapted to use a data service protocol selected from a group consisting of General Packet Radio Service (GPRS), High-Speed Circuit-Switched Data Service (HSCSD), Enhanced Data Rate for GSM Evolution (EDGE), Integrated Services Digital Network (ISDN), Universal Mobile Telecommunications System (UMTS), and Cellular Digital Packet Data (CDPD).

However, Leppisaari teaches that the system of the mobile device is adapted to use a data service protocol selected from a group consisting of General Packet Radio Service (GPRS)(see col.5 lines 24-63).

Therefore, it would have obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Leppisaari into the teaching of Hagen and Anderson to provide a method of operating a mobile communication system supporting radio data transmission between a mobile station and a network in a number of different packet data protocols including a point to multipoint-multicast protocol, where the protocol is identified by a protocol identifier transmitted between the network and the mobile station.

Consider claims 28-29, 31 and 60-63, Leppisaari teaches that the standard mobile wireless communication protocol includes a wireless communication protocol to operate on a long-range wireless network (see fig.2, (between MS and BSS); and the system of the wireless communication protocol to operate on a long-range wireless network (see fig.2, (between MS and BSS) includes a protocol selected from a group consisting of Global System for Mobile Communications (GSM), Code Division Multiple Access-One (cdmaOne), Time Division Multiple Access (TDMA), PDC, JDC, Universal Mobile Telecommunications System (UMTS), Code Division Multiple Access-2000 (cdma2000), and Digital Enhanced Cordless Telephony (DECT) (see col.5 lines 24-63); and the system of the at least one network includes a short range network (see fig.2 (between MS and PC/PDA)); and the system of the short-range (see fig.2 (between MS and PC/PDA)) network includes a short range network selected from a

group consisting of a radio communication network, an optical communication network, and a wired communication network (see col.5 lines 24-63).

Consider claim 32, Anderson teaches that the system of the optical (infrared) communication network (see fig.1) includes an optical communication network using Infrared Data Association (IrDA) protocol (see col.22 line 63-col.23 line 35).

Consider claim 34, Leppisaari teaches the system of further comprising the server is adapted to couple to an Internet (see fig.2).

Consider claim 35, Hagen teaches that the system, further comprising a gateway inherently (because such as a computer includes with a network card or router switch) adapted to coupled in a communication path between the mobile device (see fig.9, 320) and the server (236 such as center computer and see col.2, line 22-42 and see col. 14 line 1-col. 15 line 33).

4. Claims 37-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hagen et al. (US PAT 6,424,722) as modified by Anderson (US PAT 5,721,783) as claim 36 above, and further in view of Szymansky (US PAT 6,557,029).

Consider claim 37, Hagen and Anderson teaches a hearing system, but Hagen and Anderson fail to teach the system of the distributed application includes an applet

However, Szymansky teaches the system of the distributed application includes an applet (see col.4 lines 1-39).

Therefore, it would have obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Szymansky into the teaching of Hagen

and Anderson to provide several different software processes simultaneously in the database.

Consider claims 38-40, Szymansky teaches the system of the applet is configured as a java applet (see col.4 line 1-39); and the system of the applet is adapted to receive information from the computer, and wherein the applet is adapted to transmit information to the computer (see figs. 1-2 and col.4 lines 1-39); and the system of the mobile device includes a browser that is adapted to receive the applet to execute on the mobile device so as to interact with the system (see figs. 1-2 and col.4 lines 1-39).

5. Claims 41 and 71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hagen et al. (US PAT 6,424,722) as modified by Anderson (US PAT 5,721,783) as claims 15-16 and 47-48 above, and further in view of Knappe (US PAT 6,6061,431).

Consider claims 41 and 71, Hagen and Anderson do not clearly teach that the system of the server includes a database that includes patient data, and audiological data associated with at least one hearing aid system.

However, Knappe teaches that the system of the server includes a database that includes patient data, and audiological data associated with at least one hearing aid system (see col.2 line 19-col.3 line10).

Therefore, it would have obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Knappe into the teaching of Hagen and

Anderson to provide hearing compensation parameters stored in a searchable attribute database associated with a user's telephone number.

Consider claims 69-71, Knappe teaches that the system of the at least one object (such as for matching telephone number) is adapted to receive information from the server, and wherein the at least one object is adapted to transmit information to the server (see col.2 line 19-col.2 line 33); and the system of the terminal includes a software environment that is adapted to receive the at least one object (such as for matching telephone number) to execute on the terminal so as to interact with the hearing aid system (see col.1 line 36-col.2 line 5); and the system of the server includes a database that includes patient data (user's profile), and audiological data associated with at least one hearing aid system (see col.2 line 12-col.3 line 35).

6. Claim 43-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hagen et al. (US PAT 6,424,722) as modified by Anderson (US PAT 5,721,783) as claim 15 and 24 above, and further in view of Fazio (US PAT 6,590,986).

Consider claim 43, Hagen and Anderson do not teaches the system of the personal communication and information device includes a CompactFlash module that is adapted to communicate with the hearing aid system.

However, Fazio teaches that the system of the personal communication and information device includes a CompactFlash module that is adapted to communicate with the hearing aid system (see abstract and fig.2).

Therefore, it would have obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Fazio into the teaching of Hagen and Anderson to provide a hearing aid programming interface that is compatible with computers of all types.

Consider claim 44, Anderson teaches the system of the digital cellular phone includes a custom interface module that is adapted to communicate with the hearing aid system (see col.26 line 6-col.27line 24).

Consider claims 45-46, Fazio teaches the system of the upgraded audiological software includes a piece of software to be executed on the mobile device (see figs. 1-2 and col.3 line 19-col.4 line30); and the system of the hearing aid system includes a hearing aid, and wherein the upgraded audiological software includes a piece of software to be executed on the hearing aid (see figs. 1-2 and col.3 line 19-col.4 line 30).

7. Claims 42 and 72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hagen et al. (US PAT 6,424,722) and Anderson (US PAT 5,721,783) as modified by Leppisaari et al. (US PAT 6,717,925) as applied to claims 15 and 31 above, and further in view of Peters (US PAT 6,601,093).

Consider claims 42 and 72, Hagen, Anderson and Leppisaari do not teach that the system of the radio communication network includes a network selected from a group consisting of HomeRF, DECT, PHS, WLA, and Bluetooth technology.

However, Peters teaches that the system of the radio communication network includes a network selected from a group consisting of Bluetooth technology (see col.2 line 59-col.3 line 11).

Therefore, it would have obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Peters in to teaching of Hagen; Anderson and Lappisaari to provide provide a communication system which is a low-powered radio module.

7. Claims 67, 70, 93 and 95 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hagen et al. (US PAT 6,424,722) as modified by Anderson (US PAT 5,721,783) as claims 36, 66 above, and further in view of Peters (US PAT 6,601,093).

Consider claims 67 and 70, Hagen teaches that the system of the terminal is configured to communicate with the hearing aid system using wireless and the terminal (such as computer) is configured to communicate with the hearing aid system over wireless or wire (see fig.1 and col.14 line 1-col.15 line 37), but Hagen and Anderson do not clearly teach that Bluetooth wireless communication protocol; and a short-range network using a protocol associated with the short-range network.

However, Peters teaches the Bluetooth wireless communication protocol and a short-range network using a protocol associated with the short-range network (see fig.1 and col.5 line 1-col.6 line 67).

Therefore, it would have obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Peters in to teaching of Hagen; and

Anderson to provide a communication system which is a low-powered radio module for saving energy.

Consider claims 93 and 95, Anderson teach that the system of the mobile device is configured to communicate with the hearing aid system using wireless communication protocol and the system of the mobile device is configured to communicate with the hearing aid system over the short-range network (see fig.2, col.4 line26-col.5 line 60); but Hagen and Anderson do not clearly teach that the Bluetooth wireless communication protocol and a short-range network using a protocol associated with the short-range network.

However, Peters teaches the Bluetooth wireless communication protocol and a short-range network using a protocol associated with the short-range network (see fig.1 and col.5 line 1-col.6 line 67).

Therefore, it would have obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Peters in to teaching of Hagen; and Anderson to provide a communication system which is a low-powered radio module.

(10) Response to Argument

Appellant alleged the Applicable Law under 35 U.S.C. §103(a) (see argument, page 8).

The examiner responds that each and every Office action detailed the underlying factual determinations according to 35 U.S.C. §103(a) and MPEP. Hagen is relied on to teach mobile device (portable multiprogram unit PMU 320, col. 12, line 66 – col. 13, line

9), programming fitting server (host computer 236, to perform programming function, col. 10, lines 11-22); and programming (programming functions) software (program memory 374) in a hearing aid (344) using (download and control) the programming fitting device (236) and the mobile device (320). Hagen does not teach that the communication between the mobile device and the programming fitting server uses a mobile wireless communication protocol. Anderson teaches a mobile device (RPU 16 with wireless link circuitry 19) receiving programming (test program) via a mobile wireless communication protocol (secondary wireless link), alternative to a wired link. The combined teaching of Hagen and Anderson would provide wireless communications, implemented on a mobile wireless communication protocol, between the mobile device and the programming fitting server, in addition to the wired communications.

In response to the argument regarding motivations to combine, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Hagen and Anderson are directed to programming for hearing compensation and motivations to combine are provided in the rejection of claim 1 above, such as the predictable advantage of increased mobility and user convenience.

Regarding whether claims 1-5, 15-21, 24-26, 30, 32-33, 36, 47-53, 56-58, 64-66, 68-69 and 94 were properly rejected under 35 USC § 103(a) as being unpatentable over Hagen et al. (US 6,424,722) in view of Anderson (US 5,721,783) (Issue No. 1, starting from page 10).

Appellant alleged that the rejection improperly combines the references (see the argument, page 10 last paragraph to page 11).

The examiner respectfully disagrees. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In this case, Hagen teaches communicating between a mobile device (see fig.9, portable multiprogram unit PMU 320, col. 12, line 66 – col. 13, line 9) and programming fitting server (see fig.9, host computer 236, to perform programming function, col. 10, lines 11-22); and programming software in a hearing aid (e.g, download or program software in to the memory 374 (fig.10) of hearing aid device 344 in (fig.9)) using the programming fitting device (236) and the mobile device ((320) and see col. 14, line 1 - col. 15, line 37); and Anderson teaches programming (adjusting hearing compensation) hearing devices (see fig.1, 10), wherein communication between a mobile device (16,

col. 3, line 51-col.4 line 14) and a programming fitting server (19 and see col.27 line 21-24) uses a mobile wireless communication protocol (see col. 25 line 15-col. 26 line 23). Anderson also teaches that the wireless communication link is alternative to a wired communication link (col.27 line 21-24).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Anderson into Hagen to use a mobile wireless communication protocol to establish communication between the mobile device and the programming fitting server so that more convenience could be provided to the user.

Appellant alleged, in B)(1)(b) that the Office mischaracterizes element 19 of Anderson as a programming fitting server. Element 19 in FIG. 1 of Anderson is identified as "OPTIONAL SECONDARY WIRELESS LINK CIRCUITRY". Anderson states: "The RPU 16 may be connected (via wired or wireless means 18) to optional secondary wireless link circuitry 19 that allows wireless communication between the RPU and other sources of information (e.g. the general subscriber telephone network) via a secondary wireless link. " (Col. 4 lines 7-12.) Appellant alleged that Anderson is silent as to the source of the hearing test program that is sent over the wireless link, and further asserts it is improper for the Office to assume that the hearing test program is provided by a programming fitting server. There is no express or inherent disclosure of a programming fitting server used to program hearing aids (see the argument, page 10 last paragraph to page 11).

The examiner respectfully disagrees. Anderson disclose the RPU 16 is connected (wireless means 18) to secondary wireless link circuitry 19 that allows wireless communication between the RPU and other sources of information (e.g. the distributed wireless network; local area network and database access for down loading hearing test program) via a secondary wireless link (such as, fitting server, see col. 25 line 15-50, col. 26 line 6-53 and col.27 line 4-24). In other words, Anderson teaches the RPU 16 is connected (wireless means 18) to secondary wireless link circuitry 19 for down loading the software into RPU DSP 948 (see col. 27 line 4-24).

On the other hand, Hagen is relied on to teach mobile device (portable multiprogram unit PMU 320, col. 12, line 66 – col. 13, line 9) down loading the program from the programming fitting server (host computer 236, to perform programming function, col. 10, lines 11-22); and programming (programming functions) software (program memory 374) in a hearing aid (344) using (download and control) the programming fitting device (236) and the mobile device (320).

The combined teaching of Hagen and Anderson would provide wireless communications, implemented on a mobile wireless communication protocol, between the mobile device and the programming fitting server. Hagen teaches distributed application (hearing aid programming software) in that it interacts with the host, the PMU and the hearing aid, and that it is transmitted from the server/host to the PMU and to the hearing aid and executed to control the operation of the hearing aid.

Appellant alleged that the combination of references, as proposed by the Office, do not show all of the claimed subject matter. B(2)(a). Independent Claim 1. As stated

above, the Office improperly combined the references. Additionally, the combination of Hagen et al. and Anderson does not illustrate the use of a mobile wireless communication protocol to communicate between a mobile device and a programming fitting server. Additionally, the combination of Hagen et al. and Anderson does not illustrate the programming of software in a hearing aid using the programming fitting server and the mobile device, as recited in claim 1 (see the argument, page 14 last paragraph to page 11, 1st paragraph).

The examiner respectfully disagrees. Hagen teaches communicating between a mobile device (see fig.9, portable multiprogram unit PMU 320, col. 12, line 66 – col. 13, line 9) and programming fitting server (see fig.9, host computer 236, to perform programming function, col. 10, lines 11-22); and programming software in a hearing aid (e.g, download or program software in to the memory 374 (fig.10) of hearing aid device 344 in (fig.9)) using the programming fitting device (236) and the mobile device ((320) and see col. 14, line 1 - col. 15, line 37). Anderson teaches programming (adjusting hearing compensation) hearing devices (see fig.1, 10), wherein communication between a mobile device (16, col. 3, line 51-col.4 line 14) and a programming fitting server (19 and see col.27 line 21-24) uses a mobile wireless communication protocol (see col. 25 line 15-col. 26 line 23). The combination meets the limitations as recited in claim 1.

Claims 2-3 depend on claim 1, and are asserted as met by the prior art relied on at least for the reasons provided with respect to claim 1.

Appellant alleged that office improperly combined the references. Additionally, the combination of Hagen et al. and Anderson does not illustrate the programming a

hearing aid system through a mobile device using at least one mobile wireless communication protocol. The combination does not illustrate programming a hearing aid, where programming the hearing aid includes receiving a distributed application in the mobile device from a programming fitting server through at least one long-range network using the at least one mobile wireless communication protocol, and using the distributed application to program a hearing aid in the hearing aid system, as recited in claim 4 (see the argument, page 11, 3rd paragraph).

The examiner respectfully disagrees. Hagen teaches programming a hearing aid system (344, 348 in fig.9) through a mobile device (320, portable multiprogram unit PMU 320, col. 12, line 66 – col. 13, line 9) wherein programming the hearing aid system includes (see figs 9-10 and col. 14 line 1 –col. 15 line 15):

receiving (download, col. 13, lines 4-11; col. 14, lines 16-18) a distributed application (programming software in hearing aid memory) in the mobile device (PMU, 320) from a programming fitting server (host computer 236, col. 10, lines 11-22); and using the distributed application to program a hearing aid in the hearing aid system (adjust parameters, col. 15 lines 7-12, 19-26 and See additionally, col. 14 line 1-col. 15 line 37).

On the other hand, Anderson teaches wireless communications, implemented on a mobile wireless communication protocol, between the mobile device and the programming fitting server. See discussion of claim 1. Anderson teaches long-range network (see fig.1 and see col. 3 line 51-col. 4 line 14).

The combination meets the limitations as recited in claim 4.

Claim 5 depends on claim 4, and is asserted as met by the prior art relied on at least for the reasons provided with respect to claim 4.

Appellant alleged that the office improperly combined the references. Additionally, the combination of Hagen et al. and Anderson does not illustrate a system that includes a mobile device adapted to use a mobile wireless communication protocol to communicate with the programming fitting server and to program software in the hearing aid, as recited in claim 15 (see the argument, page 15, last two paragraphs).

The examiner respectfully disagrees. Hagen teaches a hearing aid system having hearing aid (see fig.9 (344,348)), programming fitting server (236), mobile device (320) adapted to communicate with the programming fitting server (326) and to program the software in the hearing aid (344,348), as discussed in detail in the rejection of claim 1 and 4 with respect to Hagen. On the other hand, Anderson teaches a mobile device (RPU 16 with wireless link circuitry 19) receives programming (test program) using a mobile wireless communication protocol (secondary wireless link), alternative to wired link. Col. 27, lines 22-24. See additionally, fig.2, col.5 line 60-col. 6 line 46, col.25 line 15-col. 26 line 53. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Anderson into Hagen to use a mobile wireless communication protocol to establish communication between the mobile device and the programming fitting server so that more convenience could be provided to the user. The combination meets the limitations as recited in claim 15.

Claims 16-21, 24-26, 30 and 32-33 depend, either directly or indirectly, on claim 15, and are asserted as met by the prior art relied on at least for the reasons provided with respect to claim 15.

Appellant alleged that the combination of Hagen et al. and Anderson does not illustrate a system that includes a mobile device adapted to use a mobile wireless communication protocol to receive a distributed application from a computer from a long-range network and use the distributed application to program the hearing aid, as recited in claim 36 (see the argument, page 16, last three paragraphs).

The examiner respectfully disagrees. Hagen teaches a hearing aid system having a hearing aid (344,348, discussion of claim 1); a distributed application (hearing aid programming software, discussion of claim 4); a mobile device adapted (320) to program the hearing aid, the mobile device adapted to receive the distributed application from a computer (236) (discussion of claim 4, receiving); the mobile device (320) adapted to use the distributed application to program the hearing aid (discussion of claim 15, to program). On the other hand, Anderson teaches a mobile device (RPU 16 with wireless link circuitry 19) receives programming information using a mobile wireless communication protocol (secondary wireless link), alternative to wired link, as discussed in detail in the rejection of claim 15. Anderson also teaches a long-range network (see col. 25 line 15-col. 26 line 53). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Anderson into Hagen to include a wireless communication for the reception through a long-range network. Note discussion of claim 15 for a motivation to combine.

Hagen teaches distributed application (hearing aid programming software) in that it interacts with the host, the PMU and the hearing aid, and that it is transmitted from the server/host to the PMU and to the hearing aid and executed to control the operation of the hearing aid. The combination meets the limitations as recited in claim 36.

Appellant alleged that it would be improper to take official notice of the missing features as they are not supported by a clear and unmistakable technical line of reasoning. Thus, a prima facie case of obviousness has not been established (see the argument, page 16, last three paragraphs).

The examiner responds that the examiner did not take official notice of any missing features. Therefore, the argument is moot.

Claim 94 is dependent on claim 36, and is asserted as met by the prior art relied on at least for the reasons provided with respect to claim 36.

Appellant further alleged that the combination of Hagen et al. and Anderson does not illustrate a system that includes a terminal adapted to program software in the hearing aid, and to use at least one wireless communication protocol to communicate with a programming fitting server to program the software, as recited in claim 47 (see the argument, page 17, 3rd paragraph).

The examiner respectfully disagrees. Hagen as modified by Anderson teaches hearing aid system having a hearing aid (344,348 in fig.9); and terminal (320) adapted to program software in the hearing aid (discussion of claim 15, to program), the terminal adapted to use at least one wire communication protocol to communicate with a programming fitting server (236) (discussion of claim 15, to communicate). It is noted

that software (program 1, ..., program N) in the hearing aid in Hagen is transmitted from PMU 320 and programmed/controlled by the PMU (col. 14, line 55-62; col. 15, lines 1-18). The combination meets the limitation as recited in claim 47.

Appellant further alleged that it would be improper to take official notice of the missing features as they are not supported by a clear and unmistakable technical line of reasoning. Thus, a prima facie case of obviousness has not been established (see the argument, page 17, last 3rd paragraph).

The examiner responds that the examiner did not take official notice of any missing features. Therefor, the argument is moot.

Claims 48-53, 56-58, 64-65 depend, either directly or indirectly, on claim 47, and are asserted as met the prior art relied on for the reasons provided with respect to claim 47.

Appellant further alleged that the combination of Hagen et al. and Anderson does not illustrate a system that includes a terminal adapted to program a hearing aid, communicate using a wireless communication protocol to receive a distributed application from a programming fitting server, and use the distributed application from the server to interact with the hearing aid (see the argument, page 18).

The examiner respectfully disagrees. Hagen as modified by Anderson teaches a hearing aid system having a hearing aid (344, 348), programming fitting server (236) adapted to store (col. 10, lines 11-22), distributed application (hearing aid programming software)(see col. 10 line 54-67), and terminal (320) adapted to program the hearing aid (344,348), the terminal adapted to communicate using a wire communication protocol to

receive the distributed application from the server (discussion of claim 4, with respect to receiving). Hagen teaches distributed application (hearing aid programming software) in that it interacts with the host, the PMU and the hearing aid, and that it is transmitted from the server/host to the PMU and to the hearing aid and executed to control the operation of the hearing aid.

Hagen as modified further teaches the terminal / mobile device (320) is adapted to use the distributed application to interact with the hearing aid (adjust parameters, col. 15, lines 7-12, 19-26). Note discussion of claim 1 for a motivation to combine.

It is noted that "the mobile device" of line 6 is interpreted as "the terminal", as best understood and as it appears to be. The combination meets the limitation as recited in claim 66.

Appellant further alleged that it would be improper to take official notice of the missing features as they are not supported by a clear and unmistakable technical line of reasoning. Thus, a prima facie case of obviousness has not been established (see the argument, page 17, last 2nd paragraph).

The examiner responds that the examiner did not take official notice of any missing features. Note the rejection of claim 47. Therefore, the argument is moot.

Claims 68-69 depend on claim 66, and are asserted as met by the prior art relied upon at least for the reasons provided with respect to claim 66.

Appellant further alleged that the addition of Shennib does not address the deficiencies of the rejection with respect to Hagen et al. and Anderson, as identified above. Claims 22-23 depend indirectly on claim 15, and claims 54-55 depend indirectly

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on claim 47. These dependent claims are believed to be condition for allowance at least for the reasons provided with respect to their base claim. The Appellants respectfully request consideration and reversal of the rejection of claims 22-23 and 54-55 under 35 USC § 103(a) as being unpatentable over Hagen et al. in view of Anderson and Shennib. (see the argument, page 19, last 2nd paragraph).

The examiner responds that the base claims 15 and 47 are met by the prior art relied upon, as discussed above. As discussed in the rejection above, claims 22-23 and 54-55 are met by Hagen et al in view of Anderson and Shennib.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Lun-See Lao

/LUN-SEE LAO/

Examiner, Art Unit 2615

Examiner

Art Unit 2615

July 30, 2008

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Application/Control Number: 09/492,913

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